Appendix: Version with Markings to Show Changes Made

The claims are amended as follows:

79. (Amended) A shape memory alloy catheter comprising:
a catheter body formed with a sidewall portion;
a shape memory alloy portion positioned adjacent the catheter sidewall portion having a lattice network of individually configured shape memory alloy micro-actuators, wherein the micro-actuators are arranged in segmented joints;
an addressable thin-film heater element in communication with the shape memory alloy portion for activation of selected micro-actuators;
a micro-fabricated sensor; and
[The shape memory alloy catheter as recited in claim 78 further including] connecting rings for separating the micro-actuators into segmented joints.

81. (Amended) The shape memory alloy catheter as recited in claim [30]86 wherein the addressable thin-film heater element is operable to heat at least one micro-actuator for varying the relative stiffness of the shape memory alloy portion.

83. (Amended) The shape memory alloy catheter as recited in claim [30]86 wherein the shape memory alloy portion surrounds at least a portion of the catheter body.

84. (Amended) The shape memory alloy catheter as recited in claim [30]86 wherein the shape memory alloy is NiTi.

85. (Amended) The shape memory alloy catheter of claim [30]86 further including a micro-fabricated transducer.

86. (Amended) A shape memory alloy catheter comprising:
a catheter body formed with a sidewall portion;

a shape memory alloy portion positioned adjacent the catheter sidewall portion having a lattice network of individually configured shape memory alloy micro-actuators;

an addressable thin-film heater element in communication with the shape memory alloy portion for activation of selected micro-actuators; and

a micro-fabricated sensor,

[The shape memory alloy catheter of claim 30] wherein at least two of the individually configured shape memory alloy micro-actuators are formed from a single piece of shape memory alloy material.

88. (Amended) A shape memory alloy catheter comprising:

a catheter body formed with a sidewall portion;

a shape memory alloy portion positioned adjacent the catheter sidewall portion having a lattice network of individually configured shape memory alloy micro-actuators, wherein the micro-actuators are arranged in segmented joints;

an addressable thin-film heater element in communication with the shape memory alloy portion for activation of selected micro-actuators;

a micro-fabricated transducer; and

[The shape memory alloy catheter as recited in claim 87 further including] connecting rings for separating the micro-actuators into segmented joints.

90. (Amended) The shape memory alloy catheter as recited in claim [74]95 wherein the addressable thin-film heater element is operable to heat at least one micro-actuator for varying the relative stiffness of the shape memory alloy portion.

92. (Amended) The shape memory alloy catheter as recited in claim [74]95 wherein the shape memory alloy portion surrounds at least a portion of the catheter body.

93. (Amended) The shape memory alloy catheter as recited in claim [74]95 further including a micro-fabricated sensor.

94. (Amended) The shape memory alloy catheter as recited in claim [74]95 wherein the shape memory alloy is NiTi.

95. (Amended) A shape memory alloy catheter comprising:

a catheter body formed with a sidewall portion;

a shape memory alloy portion positioned adjacent the catheter sidewall portion having a lattice network of individually configured shape memory alloy micro-actuators;

an addressable thin-film heater element in communication with the shape memory alloy portion for activation of selected micro-actuators; and

a micro-fabricated transducer,

[The shape memory alloy catheter of claim 74] wherein at least two of the individually configured shape memory alloy micro-actuators are formed from a single piece of shape memory alloy material.